Supplemental Finding for Maryland Darter Revised Final Recovery Plan

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## BACKGROUND INFORMATION

Section 4(f)(1)(B)(ii) of the Endangered Species Act (Act) requires that each recovery plan shall incorporate, to the maximum extent practicable, "objective, measurable criteria which, when met, would result in a determination...that the species be removed from the list."

A 2006 Government Accountability Office (GAO) audit of the National Marine Fisheries Service's (NMFS) and the U.S. Fish and Wildlife Service's (USFWS) endangered species recovery programs recommended that the Secretaries of the Department of Commerce and the Interior direct their staff to ensure that all new and revised recovery plans have either recovery criteria evidencing consideration of all five delisting factors or a statement regarding why it is impracticable to do so (GAO 2006). Since the 2006 GAO audit, we have updated our recovery planning and implementation guidance (NMFS and USFWS 2010), and new plans have included determinations regarding the feasibility or possibility of incorporating delisting criteria related to each of the five factors, as recommended by the GAO. Active recovery plans remain, however, that lack delisting criteria and contain either an incomplete determination regarding the practicability of incorporating delisting criteria, or are silent about the absence of delisting criteria in the recovery plan. In this document, we clarify why it remains impracticable to incorporate delisting criteria for the Maryland Darter (*Etheostoma sellare*) in the Maryland Darter Final Revised Recovery Plan.

## METHODOLOGY USED TO COMPLETE THE FINDING

All collections or observations of the Maryland darter have occurred in three Harford County, Maryland, streams: Swan Creek, Gashey's Run, and Deer Creek. The species was originally discovered in 1912 in Swan Creek (Radcliffe and Welsh 1913) but was never collected there again, despite significant search efforts (USFWS 1985). The species was not rediscovered until 50 years later, in 1962, when a single specimen was collected in Gashey's Run. A second Maryland darter was collected from Gashey's Run in 1965, but the species has not been collected

or observed there since. Also in 1965, the species was found in Deer Creek. Additional sightings of the darter in Deer Creek, using seines or by snorkeling, were made irregularly from 1974 through 1988. There have been no further observations of the darter since 1988. Intensive surveys to find the Maryland darter in 1991 and 1992 were unsuccessful (Raesly 1991, 1992). In 1996 the USFWS issued a 90-day finding for a petition to delist due to extinction, which concluded that "this hiatus in reporting does not provide definitive evidence of the species' extinction in the wild" (61 FR 5971 5972). At that time, the Susquehanna River had not been adequately searched, so survival could not be ruled out for that reason as well.

From 2008 through 2012, more intensive survey efforts were conducted by several researchers using various methods, including backpack electrofishing/seining, snorkeling, boat-mounted electrofishing, and electro-trawling (Kilian et al 2010, Kilian and Raesly 2012, Normandeau Associates et al. 2012, Raesly 2011). Use of electro-trawling, starting in 2008, allowed effective surveying of the mainstem of the Susquehanna (a possible refugium for the Maryland darter) for the first time since the species' listing. Although surveys were extensive, no Maryland darters were found.

As of 2013, due to the negative results of extensive surveys conducted in known historic locations in 1991 and 1992 (Raesly 1991 and 1992), and in the Susquehanna River from 2008 to 2012 (Killian et al. 2010, Raesly 2011, Normandeau 2012, Killian and Raesly 2012), no further consultations under section 7 of the Act have been conducted. However, in 2010 and 2011, due diligence was performed for one major project in this reach of the Susquehanna River: relicensing of the Conowingo Dam. Studies conducted for Exelon Corporation by Normandeau and Associates, Inc., included all survey work recommended by the USFWS to determine whether the Maryland darter occurs in the mainstem of the Susquehanna River. These surveys were negative for the Maryland darter although all other species of darter potentially occurring were collected by the methods used (Normandeau 2012). No evidence of occurrence of the Maryland darter in the Susquehanna River has been established. In addition, results of this survey and other surveys funded by the Maryland Department of Natural Resources and the USFWS indicate that the Maryland darter likely does not occur in the Susquehanna or other locations formerly known to support the species. Therefore, a not likely to adversely affect finding was made for the Conowingo Dam relicensing, and no further section 7 consultations for the species have been conducted in historically known locations.

## **FINDING**

Downlisting criteria as described in the 1985 Maryland darter Recovery Plan requires "six discrete populations" of the species prior to consideration. No delisting due to recovery criteria were developed at that time because this was not considered possible given known conditions. This remains the case.

## References:

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- Normandeau and Associates, Inc. and Gomez and Sullivan Engineers. 2012 (August). Final Study Report Maryland Darter Survey, RSP 3.10; Conowingo Hydroelectric Project. Prepared for Exelon. 62pp.
- Radcliffe, L. and W.W. Welsh. 1913. Description of a new darter from Maryland. Bulletin of the Bureau of Fisheries. 32: 29-32.
- Raesly, R.L. 1991. Population Status of the Endangered Maryland Darter, *Etheostoma sellare*, in Deer Creek. Report submitted to the Maryland Natural Heritage Program. 28pp.
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